

Claims:

- 5 1. A method for cutting pasted expanded, punched or cast metal mesh strip into
battery plates for lead acid batteries with a cutting device comprising heating said cutting
device to a temperature above a predetermined minimum temperature whereby the paste
does not adhere to the heated cutting device.
- 10 2. A method as claimed in claim 1 in which said cutting device is heated to a
temperature of at least 150°C.
- 15 3. A method as claimed in claim 1 in which said cutting device is heated to a
temperature in the temperature range of about 160 to 300°C.
- 20 4. A method as claimed in claim 1 in which the cutting device comprises cutting
blades mounted on a cutting roll.
- 25 5. A method as claimed in claim 4 in which the cutting device additionally comprises
an index mechanism, an anvil roll opposed to said cutting roll for receiving the pasted
metal mesh strip therebetween and in which the cutting blades, the cutting roll and the
anvil roll are heated to a temperature in the range of about 160 to 300°C.
- 30 6. A method as claimed in claim 5 in which the cutting blades, the cutting die roll and
the anvil roll are heated to a temperature in the range of about 180 to 210°C.
- 35 7. A method as claimed in claim 1 in which the cutting device is a linear
reciprocating cutter.
- 40 8. A method as claimed in claim 5 in which the metal mesh strip is a lead or lead
alloy expanded mesh strip.
- 45 9. An apparatus for continuously cutting pasted, expanded, punched or cast lead or
lead alloy mesh strip into battery plates comprising a pair of opposed rolls having cutting
blades on at least one roll for cutting the pasted lead or lead alloy mesh strip into equal
lengths, means for journaling said rolls in operative abutment with each other in a
supporting frame, conveying means for continuously passing the pasted lead or lead alloy
mesh strip between the opposed rolls, and heating means for heating the cutting blades and
opposed rolls to a temperature above about 150°C.
- 50 10. An apparatus as claimed in claim 9 in which said heating means are operative for

heating the cutting blades and the opposed rolls to a temperature in the temperature range of about 160 to 300°C.

11. An apparatus as claimed in claim 10 in which said heating means are operative for heating the cutting blades and the opposed rolls to a temperature in the temperature range of about 180 to 210°C.
12. An apparatus as claimed in claim 10 in which the heating means are mounted axially in each of the rolls along the length of the rolls for uniformly heating the cutting blades and the rolls.
13. An apparatus as claimed in claim 12 in which the heating means are electrical heaters mounted axially in each of the rolls in electrical communication with a power supply.
14. An apparatus as claimed in claim 10 in which the opposed rolls have cutting dies on one roll for cutting the pasted lead or lead alloy mesh strip passing therebetween into equal lengths against the other roll for support.
15. An apparatus for a cutting pasted expanded lead or lead alloy mesh strip into battery plates for lead-acid batteries according to the method of claim 7 comprising a pair of opposed rolls having cutting blades on at least one roll for cutting the pasted lead or lead alloy mesh strip into equal lengths, means for journaling said rolls in operative abutment with each other in a supporting frame, conveying means for continuously passing the pasted lead or lead alloy mesh strip between the opposed rolls, and heating means for heating the cutting dies and opposed rolls to a temperature above about 150°C.
16. An apparatus as claimed in claim 15 in which said heating means are operative for heating the cutting dies and the opposed rolls to a temperature in the temperature range of about 160 to 300°C.
17. An apparatus as claimed in claim 15 in which said heating means are operative for heating the cutting dies and the opposed rolls to a temperature in the temperature range of about 180 to 210°C.
18. A battery plate for use in lead-acid batteries produced by the method of claim 1.
19. A battery plate for use in lead-acid batteries produced by the method of claim 8.
20. A lead-acid battery having a plurality of battery plates produced by the method of

claim 1.

21. A lead-acid battery having a plurality of battery plates produced by the method of claim 8.

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